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(54) **Election apparatus.**

(57) An election apparatus (1) for entering, reproducing, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls, wherein, to enable a selection to be made, an electronic table (2) is provided, representing a ballot paper having areas (6, 7) associated with each possible choice, the selection to be made by the voter being made by indicating or touching the area (6, 7) associated with the desired selection, and that the electronic table (2) further includes a special area (5) for confirming a selection so made.

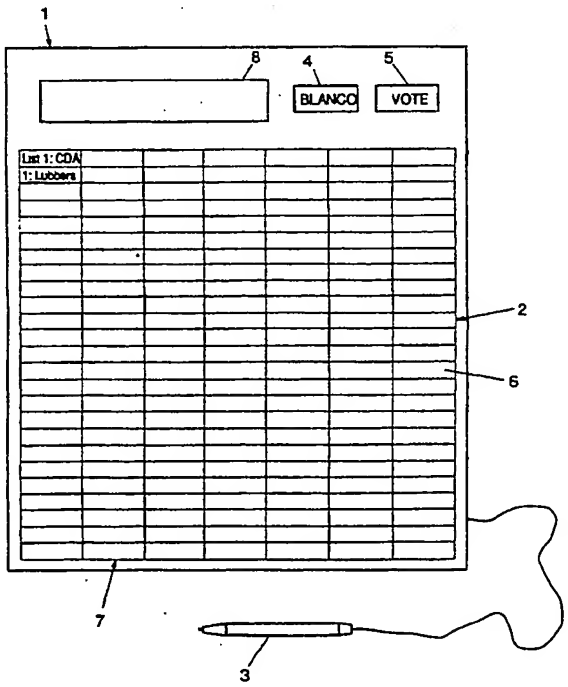

FIG. 1

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ELECTION APPARATUS

This invention relates to an election apparatus for entering, reproducing, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls.

In the Netherlands the known election apparatuses, sometimes referred to as voting machines, are used primarily in parliamentary and local elections. Voting machines are now used in many countries. The constructions vary between countries because the voting procedures differ from one country to another. In the case of elections in the Netherlands, the lists of parties and candidates are placed under the keyboard of the voting machine by means of strips. One row of keys is assigned to each list. Within that row, one key is assigned to each candidate. The name of each candidate is visualized to the right of the key assigned to him. When the voter has pressed the key of his choice, his selection is displayed on a screen, i.e. the number of the list selected and the number of the candidate selected from that list are indicated. However, it is also possible for the voter to indicate he abstains from voting - namely, by pressing the "blank" key provided for that purpose.

When the voter finds he wants to change his original vote, a reset key can be pressed. In that case the selection procedure in the voting procedure can be repeated. When the voter has verified his choice, he can make it final by pressing the voting button provided above the keyboard. The voting machine is now blocked for further use. By pressing the 'clear' button, the presiding officer of the polling station can clear the machine for a next voter.

The known voting machines have a number of drawbacks. The user-friendliness of the machine is very limited. This is due to the large number of buttons, namely 750, provided on the voting board for the various lists and candidates. Furthermore, the buttons are positioned in such a way that the button must be pressed on the left of the name of the candidate. A visually convenient arrangement is further limited by the fact that in the known machine not the names of the list selected and the candidate selected, but only the corresponding numbers are represented on a screen provided above the keyboard. Another drawback is that the weight and the dimensions of the known machines are relatively great. As a result, the transportation and the storage of large numbers of machines may cause problems.

It is an object of the present invention to obviate the drawbacks mentioned hereinabove and generally to provide a user-friendly election apparatus.

To that end, according to the invention an election apparatus of the type described hereinabove is characterized in that, to enable a selection to be made, the apparatus is provided with an electronic table representing a ballot paper having areas associated with each possible choice, the selection to be made by the voter being made by indicating or touching the area associated with the desired selection, and that the electronic table further includes a special area for confirming a selection so made.

The invention will now be further explained and illustrated with reference to one accompanying Figure. This Figure shows an embodiment of an election apparatus 1 according to the invention having an electronic table 2 integrally incorporated in the apparatus. An electronic table comprises an electrically or electronically sensitive surface divided into a mumber of segments. Grouped in certain numbers and/or patterns, these segments may further subdivide the surface of the electronic table. Connected to the electronic table is an indicator pen or touch pen 3. When the pen 3 is brought within the proximity of a segment, such as segment 6, or of a group of segments, such as column 7, a contact, for instance electronic, is established. In operation the electronic table 2 is linked to a central processing apparatus, for instance a microprocessor, so that contacts so made can be recorded and processed. The electronic table may also be so constructed that operation by the finger is possible. To this effect the electronic table may be built up from a matrix of thin layer switches or touch switches. In the processing apparatus a value, function, or assignment is assigned to a certain segment or a group of segments.

The lay-out of the ballot paper is removably provided at the top of the electronic table surface. Each list on the ballot paper corresponds to a column of segments in the electronic table. In the column one line, in the form of one or more segments, is reserved for each candidate of a list. Furthermore, on the electronic table an area is reserved for a blank vote surface 4 and an area 5 for making a previously made selection final.

Now, by touching the space, for instance segment 6, for a certain candidate on the ballot paper, or the blank vote surface with the indicator pen 3, the position indicated by the indicator pen is taken over by the table. Optionally, the contact so made can be signified to the voter by means of an auditory signal. It is now clear to the central processing part of the election apparatus that the voter has made a choice. The choice made is then

visualized on the electronic table surface by the lighting up, or other manner of accentuation, of the area of the table that is reserved for the candidate selected. Accordingly, the voter can verify directly whether the choice he has made corresponds with the choice he desired to make. If the voter wishes to replace the choice he has just made by another choice, he can, to that effect, indicate another candidate. Again, the area of the table reserved for this candidate may light up or be otherwise accentuated. The choice is made final by indicating the voting surface 5.

To enable checking of a choice made, the election apparatus may be constructed with an electronic screen for displaying a choice that has been made. To verify his choice, the voter must look at the electronic screen, on which the names of the list and candidate selected are displayed.

The electronic screen may for instance be a video screen or a liquid crystal display. Preferably, the screen is integrated in the election apparatus, for instance in the electronic table, as shown at 8. Conversely, the electronic table may be accommodated in or on the screen, for instance in a so-called touch screen.

When the selection has been made final, the election apparatus is (temporarily) blocked for further use, whereafter the presiding officer of the poll station can clear the machine for use by a next voter by remote control. Optionally, the election apparatus can be constructed with a reset surface for correcting a selection made.

It is observed that after perusal of the above, various modifications will readily occur to anyone skilled in the art. Thus the electronic table may be provided with tactile patterns representing a ballot paper for and on behalf of visually handicapped persons. Also, auditory aids may be provided, for instance indicating the acceptance of a selection made by means of an auditory signal, and/or auditorily reproducing the selection made, for instance via a headphone.

Claims

1. An election apparatus for entering, reproducing, recording and grouping one or more selections to be made by a voter, particularly suitable for selecting lists and/or candidates in polls, characterized in that, to enable a selection to be made, the apparatus is provided with an electronic table representing a ballot paper having areas associated with each possible choice, the selection to be made by the voter being made by indicating or touching the area associated with the desired selection, and that the electronic table further includes a special area for confirming a selection so made.

2. An election apparatus according to claim 1, characterized in that, for the verification of a selection made on an electronic screen, means are provided for reproducing, in operation, the names of the candidate selected and the list selected or a blank vote.

3. An election apparatus according to claim 1 or 2, characterized in that, for verification of the choice made, means are provided for causing a selected area of the electronic table to light up at least in part.

4. An election apparatus according to one or more of the preceding claims, characterized by means for signifying the acceptance of a selection made, by means of an auditory signal.

5. An election apparatus according to any of the preceding claims, characterized in that for and on behalf of visually handicapped persons the electronic table area is provided with tactile patterns, which patterns give a tactile representation of a ballot paper.

6. An election apparatus according to any of the preceding claims, characterized in that the election apparatus is provided with auditory means, such as headphones, for the auditory reproduction of the selections made.

7. An election apparatus according to any one of claims 2-6, characterized in that the screen is integrated in the electronic table.

8. An election apparatus according to any one of claims 1-7, characterized by an indicator pen connected to the electronic table.

9. An election apparatus according to any one of claims 1-8, characterized in that the electronic table is constructed to be operated by the finger.

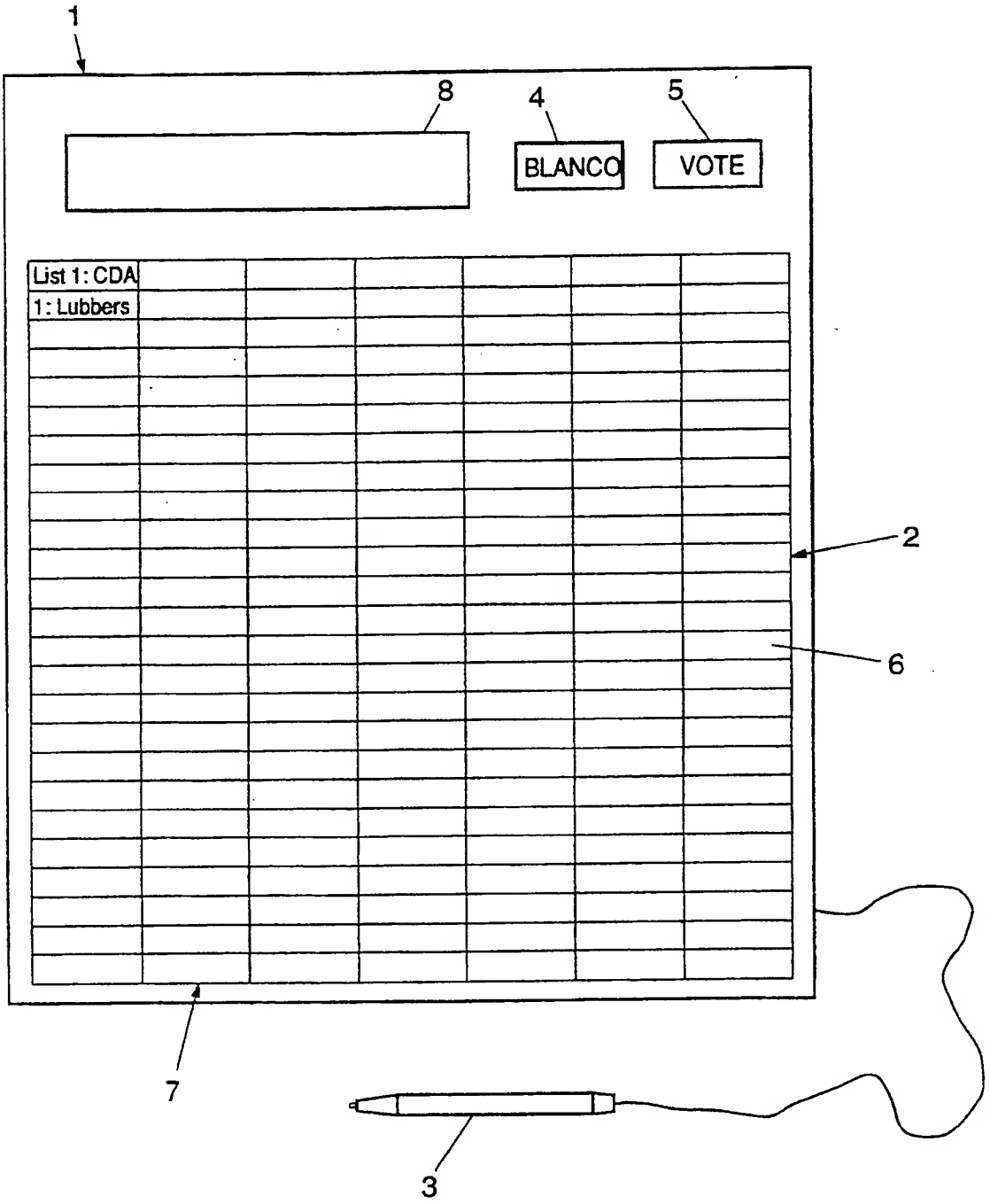

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number

EP 90 20 2559

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	EP-A-0 292 053 (NEDAP) * column 1, line 48 - column 3, line 24; claims 1, 5-12; figures *	1,2,4-9	G 07 C 13/00
Y	EP-A-0 199 683 (INDUSTRIE ELETTRONICHE REGISTRATORI DI CASSA SWEDA) * page 6, line 14 - page 9, line 1; figures *	1-3,5-7,9	
Y,A	FR-A-2 613 514 (ELECTROPLUS) * page 1, line 33 - page 3, line 8 * * page 10, lines 10 - 35; figures *	3,4,1	
Y	US-A-4 667 293 (KRIEGER) * abstract; figures *	8	
A	GB-A-1 547 430 (GEC-ELLIOTT AUTOMATION) * page 1, lines 20 - 81; figures *	1	
A	US-A-4 015 106 (PHILLIPO)		
A	US-A-3 941 976 (HUHN)		

TECHNICAL FIELDS SEARCHED (Int. Cl.5)

G 07 C
G 06 F

The present search report has been drawn up for all claims

Place of search	Date of completion of search	Examiner
The Hague	20 December 90	MEYL D.

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same catagory
A : technological background
O : non-written disclosure
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